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ABSTRACT

The study investigated the relationship between school achievement level and community involvement and support. Data from literature on schools, citizen participation, and organizations were reviewed in conjunction with a survey of midwestern elementary school principals. The hypothesis was that schools experiencing high levels of community involvement and support have higher achievement levels than those experiencing low levels of involvement and support. Data were gathered from official documents made available by the school system and questionnaires sent to principals in a sample of 135 elementary schools. Care was taken to control for school socioeconomic status and school structure variables such as enrollment, class size, average pupil mobility, specialization, and percent minority teachers. Data on rules, regulations, and characteristics of a specific school were treated to factor, multiple regression, and correlation analysis and related to a standardization scale. Findings indicated that several dimensions of community involvement and support are moderately positively related with achievement in both high and low socioeconomic status schools. No relationship was found between achievement level and community participation in decision making. Additional research utilizing more than one grade level is needed. (Author/DB)

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SCHOOL ACHIEVEMENT LEVEL VIS-À-VIS COMMUNITY INVOLVEMENT AND SUPPORT: AN EMPIRICAL ASSESSMENT*

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SCHOOL ACHIEVEMENT LEVEL VIS-A-VIS COMMUNITY INVOLVEMENT AND SUPPORT: AN EMPIRICAL ASSESSMENT

The relationship between school performance and citizen involvement has long been an issue of concern among scholars in various fields. However, this literature has been more polemical than empirical. In a recent assessment of the school-community interaction literature, Saxe (1975:230) concludes that this literature does not provide empirical evidence to support the argument that citizen participation and support results in educational benefits. In this study I empirically analyze the relationship between school achievement level and community involvement and support. This relationship is examined at the zero order level for several dimensions of community involvement and support, as well as with controls for school socioeconomic status and various school structure variables.

Scholars from various disciplines have focused on the role of community involvement and support in school performance. Writings on the topic vary in terms of empirical rigor, polemics, and unit of analysis (district, school, or student). However, most writers suggest a generally positive relationship between school achievement level and community involvement and support.

Citizen participation is one theme in the literature. The two major emphases in the citizen participation literature are citizen participation in all aspects of community affairs and citizen participation in school affairs. Perhaps the best single work on participation in various community affairs is that by Cole (1974), who cites considerable evidence to suggest that confidence in the political process can be increased by increasing the channels of citizen involvement and that doing so will increase the political

efficacy of citizens. He also cites evidence supporting a positive relationship between citizen involvement and the quality and quantity of social services rendered. Cole concludes that, contrary to popular belief, persistent citizen involvement can have positive consequences for services rendered.

The second emphasis in the citizen participation literature is citizen, particularly parental, involvement in school affairs. Writers in this field emphasize the role of citizens in maintaining school system accountability (Dyer, 1973; Lessinger, 1973; Sciara and Jantz,1972; and Wynne, 1972), and advocate both decentralization of school administration and community control of schools (Altshuler, 1970; Fantini and Gittell, 1973; Gittell, 1967; Levin, 1970; and Ornstein, 1974). The thesis in this approach is that contemporary school systems are too large and bureaucratic and, therefore, too far removed from the client. The natural result, it is suggested, is reduced school effectiveness, and the solution is for communities to become more involved with their schools. An implicit assumption is that citizens, particularly parents, who feel that they have at least a modicum of control over their schools will feel more effective in dealing with the schools. This feeling of control is thought to effect both children's attitudes toward and performance in schools as well.[1] Hence, both dimensions of the citizen involvement literature suggest a positive relationship between school achievement level and community involvement and support.

Two features distinguish the education literature from citizen participation literature: the education literature is more empirical and its focus is more on the individual student than on the school system as a whole. However, this literature also contains suggestions of a positive

relationship between achievement and community involvement and support. For example, Stearns and Peterson (1973) note a positive relationship between parental involvement and children's achievement in such federally funded programs as the Right to Read Program. Cloward and Jones (1963) note that parental involvement in school affairs is positively correlated with parental evaluations of the importance of education and w th parental attitudes toward education as an institution. Schiff (1963) reports that parental participation and cooperation in school affairs is associated with higher achievement, better attendance, better study habits, and fewer discipline problems. Both Brookover (1965) and Lopate (1969) note a positive relation between parental involvement and both student self-concept and achievement.

However, there are two shortcomings in this education literature. First, few researchers have statistically controlled for the possible spurious effect of socioeconomic status. That is, socioeconomic status is often associated with both achievement and factors themselves associated with achievement, such as more highly trained teachers and lower pupil mobility (cf. Coleman, 1966). Socioeconomic status is controlled in this study for this reason. Second, most of the studies focus on the individual as the unit of analysis. Since schools are complex organizations, and community involvement and support reflect more than just parental involvement, it seems appropriate to examine the relationship of involvement and support to the performance levels of schools as organizations (cf. Bidwell and Kasarda, 1975). Such an organizational approach reflects both the various groups and individuals that can be involved and the various hierarchical levels in the school organization where such involvement and support could be directed.

An organizational analysis of school achievement level also involves an analysis of the role of the environment in organizational functioning (e.g., Corwin, 1967; Fraser, 1967). Owens (1970:69) suggests that relatively high levels of environmental involvement prevent the service organization from becoming "closed" and, therefore, from becoming less sensitive to environmental demands. The implication is that organizations forced to keep attuned to environmental changes and demands will be more adaptive and perform more effectively. Biddle (1970:174) similarly suggests that low levels of enviromental involvement result in a closed, ineffective bureaucracy. In short, schools that experience a high degree of environmental involvement and support can be expected to have somewhat higher levels of performance.

The basic hypothesis to be tested is that schools experiencing high levels of community involvement and support have higher achievement levels than those experiencing low levels of involvement and support. In contrast to the citizen involvement literature, the focus is on an empirical assessment of the hypothesized relationship. In contrast to the education literature, which deals mainly with student achievement, the focus is on achievement levels of schools as organizations. The relationship between achievement level and community involvement and support is examined at both the zero order level and with controls for school socioeconomic status and various internal structural variables. The structural variables examined include: enrollment, centralization, standardization, specialization, flexibility, adaptability, close supervision, average pupil mobility, average class size, average teacher experience, age of building, number paraprofessionals in the school, and percent minority teachers.

METHODS

The study involved all 233 elementary schools in a large midwestern city; a net useable response rate of 58 percent resulted in a sample of 135 schools. The data were gathered in 1974 from both official documents and questionnaires sent to principals. To assess representativeness, schools with principal-supplied data were compared with schools without such data on the following variables: school socioeconomic status, enrollment, building age, average teacher experience, proportion teachers with a Master's degree or above, pupil mobility, and achievement. The only statistically significant difference is that schools whose principals participated have about 10 percent fewer students from low socioeconomic status backgrounds than do schools whose principals did not participate.

The use of the principal as an informant undoubtedly involves a certain degree of unmeasurable bias. However, the principal is the person most likely to know about such issues as community involvement and support and is perhaps the best person to estimate the extent to which various structural variables exist in his or her school. There is no a priori reason to believe that the amount of bias in the principal's report systematically varies with characteristics of either the principal or with characteristics of the school in which the principal operates.

School achievement level, the dependent variable, was operationalized by adding the mathematics and reading standardized test scores, and dividing this sum by two to obtain a mean achievement score (cf. Bidwell and Kasarda, 1975). Both the mathematics and reading tests were developed by state assessment officials in conjunction with testing experts. The mathematics test included items on numbers and operations, place value, fractions, computations, relations, logical thinking, and application,

and the reading test included items on vocabulary, sentences, and reading comprehension. The statewide scores were reported in standard form (mean of 50 and standard deviation of 10); the mean for this variable is 45.65 and the standard deviation is 4.20. Only grade four was used for the state assessment testing purposes. Although positive correlations among achievement scores for various grade levels can be expected,[2] all interpretations of school achievement levels should technically be restricted to grade four.

The achievement variable as operationalized in this study incorporates only basic skills, Schools do, of course, stress other dimensions of achievement. However, there does appear to be some consensus on the salience of the basic skills as one of the major goals school personnel strive to attain, especially when the day-to-day emphases of schools are examined (Hauser, 1972:60;Thompson, 1967:90).

The community involvement and support concept has not adequately been operationalized in previous studies. Hence 29 items were developed to operationalize this concept; these items appeared on the principal's questionnaire and are summarized in Table 1. Principal components analysis (with orthogonal rotation) was used to determine underlying dimensions in this concept; the results appear in Table 2. Seven factors emerge from this analysis (the key items are starred for each factor). Highly loading items on Factor 1 reflect behavioral involvement on the part of citizens and parents and is therefore labeled "behavioral involvement." Highly loading items on Factor 2 represent citizen participation in curricular decision making and is therefore labeled "curricular decision making." Factor 3 contains highly loading items on actual contacts between school personnel and parents and is labeled "school-parent contacts." Factor 4 is labeled "procedures decision making" since highly loading items represent

Tables 1 and 2 about here

citizen participation in decision making on procedural issues. The two items on opportunities for parents to sit down and discuss problems with the teacher and administration load highly on Factor 5; this factor is labeled "discussion opportunities." Factor 6 is labeled "facilities usage" due to the high loadings of the two items on frequency and number of groups using school facilities. The only item loading highly on Factor 7 is the item on the role of community groups in helping to raise funds; hence this factor is labeled "fund raising."

It should be noted that the items developed and the resulting factors reflect several basic dimensions of community involvement and support: behavioral and nonbehavioral support, actual contacts between school and community, an atmosphere of open communications, and participation in decision making by citizens. This last dimension represents more than an advisory role; it represents a participative role involving some exercise of power by citizens.

Several of the structural variables were also operationalized with items on the principal's questionnaire. Centralization reflects the degree to which decision making is concentrated at the upper levels of the administrative hierarchy. Centralization was operationalized by asking principals to indicate the extent of participation by central office administrators, intermediate level administrators, principals, and teachers in making decisions about such issues as text selection, establishing course objectives, hiring teachers, evaluating teachers, and the establishing of grading and disciplinary procedures. The principal was asked to indicate the level of participation for each of the four categories of persons on a scale ranging from "usually does not participate" to "usually participates and has decisive influence" (five categories). Sums were calculated for each

of the four categories of persons across all issues. The total score for teachers was then divided by the sum of the scores for the three administrative levels, yielding a ratio of teachers' decision making influence to that of the administrative levels. The scoring was reversed so that a low score reflects low centralization, i.e. high teacher decision making influence. The split-half reliability coefficient of the centralization scale is .70, the mean is .41, and the standard deviation is .07.

Standardization represents the emphasis on rules, regulations, and uniformity in a school. Principals were asked to respond to the following items on a five-point scale ranging from "not at all characteristic of my school" to "very characteristic of my school:"

1. A teacher is responsible to see that the content in textbooks is completed in the course of a year.
2. Identical school-wide tests are used for students taking the same subjects.
3. The subject material is planned so that every child studying the same subject throughout the school system will eventually cover the same material.
4. Rules specify when teachers should arrive and depart from the building.
5. To prevent confusion and friction among the staff there is a rule covering almost any problem that might come up.
6. There are rules specifying the topics that are and are not appropriate for discussion in the classroom.
7. A manual of rules and regulations exists.

Items four through seven were weighted by principals' estimates of how strictly that rule was enforced. The seven items were then summed to create the standardization scale (cf. Corwin, 1970). The split-half reliability coefficient is .63, the mean is 42.18, and the standard deviation is 21.07.

Flexibility represents the level of professional freedom teachers experience. Using a five-point scale ranging from "no freedom" to"complete freedom," principals were asked to estimate the level of freedom teachers

in their school experience in the selection and use of supplementary materials, the subject content to emphasize, the daily pacing and timing of teaching, and the modes and techniques of teaching. The scores on these four items were summed to create the flexibility scale, which has a reliability coefficient of .66, a mean of 17.01, and a standard deviation of 1.81.

Adaptability represents the school's capacity for adapting to change demands. Two items were asked of principals for purposes of operationalization. One measures the rapidity with which teachers in the principal's school accept and adjust to changes in the routines, materials, or teaching techniques (five categories ranging from "very slowly" to "immediately"). The second item inquired about the proportion of teachers in the school who rapidly accept and adjust to changes (five categories ranging from "considerably less than half" to "practically everyone"). The correlation between these two items is .70, the mean of the summed scale is 6.04, and the standard deviation is 2.06.

Close supervision represents a personal means of organizational control, i.e., the extent to which supervisors actually monitor their subordinates. This concept was operationalized by asking principals how often the superintendent, other central office personnel, and the principal observed in teachers' classrooms. A six-point scale was used, ranging from "not at all" to "five times per year or more." The scores on these three items were summed to create the close supervision scale, which has a reliability coefficient of .50, a mean of 5.41 and a standard deviation of 2.58.

Data for the remaining structural variables were gathered from official documents made avaiable by the school system. Enrollment in operationalized with the use of the number of pupils in a school (mean= 726.3, standard deviation= 325.51). Specialization was operationalized with the

use of the proportion of teachers in a school with a Masters degree or above (mean = 34.79, standard deviation = 13.06).

Average pupil mobility was operationally defined as the percent of pupils transferring in and out of a school in the last year (mean = 32.05, standard deviation = 13.54). Average class size was defined as the average number of students per class (mean = 31.69, standard deviation = 3.8). Average teacher experience was defined as the mean number of years teachers in a school have been teaching (mean = 21.1, standard deviation = 8.06). The age of the school building was defined as the number of years between initial occupation and the year of the data gathering (mean = 41.25, standard deviation = 19.47). The number of paraprofessionals was calculated on a full-time equivalent basis for each school (mean = 8.87, standard deviation = 7.84), and the percent minority teachers was calculated by dividing the number of teachers who identified themselves as belonging to a minority group divided by the total number of teachers in a school (mean = 44.81, standard deviation = 19.25). School socioeconomic status was operationally defined as the percent of pupils from families having incomes below the poverty level, as determined by the Social Security Administration (mean = 12.18, standard deviation = 8.37).

The preceding fourteen structural variables comprise the control variables in the analysis of the relationship between achievement levels and community involvement and support. They were factor analyzed (principal components analysis with orthogonal rotation) for two reasons. First, several of these structural variables are interrelated, which may result in less reliable beta weights. Second, beta weights will be less reliable if many independent variables are analyzed with the modest sample size used

in this study. Hence factor analysis was used to increase the reliability of the beta weights by both reducing the level of the intercorrelations among the control variables and by reducing the number of control variables (cf. Kerlinger and Pedhazur, 1973:442).

The results of the factor analysis are reported in Table 3 (the highest loading items per factor have been starred). The highest loading item on Factor 1 is the proportion of students from low socioeconomic status families. The other highly loading items also reflect school socioeconomic

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TABLE 3 about here

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status; hence this factor is labeled "school SES." Factor 2 contains high loadings on specialization and teacher experience and is therefore labeled "teacher training-seniority." Size is the only item loading highly on Factor 3; class size also has a moderate loading on this factor. Hence this factor is labeled "school size." Factor 4 contains high loadings on both standardization and close supervision and is labeled "control structure." Both flexibility and adaptability load highly on Factor 5, yielding an "adaptability" factor. Centralization loads highly on Factor 6, resulting in a label of "centralization" for this factor.

Factor scores were calculated for each of the factors using the factor score coefficient for all variables on a given factor. The resulting factor scores are standard scores with a mean of zero and a standard deviation of 1.0. Two statistical procedures were then used to analyze the hypothesis. Correlation analysis indicates the bivariate relationships between achievement and the various dimensions of community involvement and support. Multiple regression analysis (with beta weights) was used to assess the

unique relationship between achievement level and each of the community involvement and support factors and each of the control variables factors. Kerlinger and Pehazur (1973:363-365) adequately demonstrate the usefulness of factor scores in multiple regression analysis, and Blau (1973:34) demonstrates the advantages of beta weights over the other statistics provided by multiple regression analysis.

RESULTS

The zero order correlations among the dependent variable, independent variable factors and control variables factors are reported in Table 4. Five of the seven community involvement and support factors are positively associated with achievement level. Both "behavioral involvement" and "fund raising" factors are moderately positively related with achievement level ($r=.35, p<.001$ and $r=.28, p<.001$ respectively). Both of these relationships suggest that active involvement in school support activities--attendance at various school meetings and involvement in school functions and fund raising--is positively related with achievement. The "facilities usage" factor is also moderately positively related with the dependent

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TABLE 4 about here

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variable ($r=.21, p<.01$), suggesting that widespread and frequent use of the school facilities may be related to higher achievement levels. Both "discussion opportunities" and "school-parent contact" are positively related to achievement level ($r=.20$, $p<.01$ and $r=.14$, $p<.05$ respectively). Both of these factors represent an atmosphere of open communications between school personnel and parents. Apparently such an atmosphere is conducive of higher achievement levels. Neither of the

two citizen participation in decision making factors--"procedures decision making" and "curricular decision making"--is significantly related to achievement ($r=-.09$ and $r=-.05$ respectively). In fact, the direction of the correlations is the opposite of that predicted by the hypothesis.

In sum, the bivariate analysis indicates a generally positive relationship between school achievement level and such factors as behavioral involvement and support, use of school facilities, and an open communications atmosphere. But actual participation in decision making is apparently unrelated to achievement.

The results of the multivariate analysis including both the independent variable factors and control variables factors are summarized in the following regression equation (beta weights as the regression coefficients):

$$Y' = .214X_1^* - .053X_2 + .012X_3 - .043X_4 + .134X_5^* + .154X_6^* + .131X_7^* - .583X_8^* + .291X_9^* - .219X_{10}^* + .073X_{11} - .041X_{12} + .101X_{13}$$

where X_1 = "behavioral involvement," X_2 = "curricular decision making," X_3 = "school-parent contacts," X_4 = "procedures decision making," X_5 = "discussion opportunities," X_6 = "facilities usage," X_7 = "fund raising," X_8 = "school SES", X_9 = "teacher training and seniority," X_{10} = "size," X_{11} = "control structure," X_{12} = "adaptability," and X_{13} = "centralization." Starred beta weights are at least twice as large their standard errors. The F value for the regression equation has a significance level of $p < .01$. The multiple r is .81, and the multiple r square is .66.

The results indicate statistically significant unique positive relationships between achievement level and four of the seven community involvement and support factors: "behavioral involvement" (B=.214), "discussion opportunities" (B=.134), "facilities usage" (B=.154), and "fund raising" (B=.131). There are no significant relationships between achievement level and the remaining three factors: "curricular decision making," "procedures decision making,"

and "school-parent contacts." In short, the hypothesis is partially supported.

The results also indicate statistically significant unique relationships between achievement level and three structural variables factors. School socioeconomic status is negatively related to achievement (B=-.583;a high score indicates low SES), supporting much of the previous research on achievement and socioeconomic status (e.g., Coleman, 1966). Teacher training seniority is positively associated with achievement (B=.291), indicating that schools with high levels of trained and experienced personnel seem to produce higher levels of achievement. Size is negatively related with achievement (B=-.219); large schools experience somewhat lower achievement levels than do small schools. No significant relationships exist between achievement level and the remaining control variables factors: "control structure," "adaptability," and "centralization."

DISCUSSION

The analysis provides partial support for the hypothesized positive relationship between achievement level and community involvement and support. Two general features of community involvement and support emerge as being significantly related with achievement. The first is behavioral (but not necessarily decision making) involvement in school affairs. Behavioral involvement undoubtedly represents an underlying interest in school functionings on the part of community persons. The implication is that clients involved with and supportive of service organizations may enable such organizations to more completely attain their goals. The second general feature is an atmosphere of openness, as reflected in communications opportunities and access to and use of school facilities. An atmosphere of openness insures constant contact between organizational personnel and their clients. It cannot be assumed that the interaction is consistently positive in nature; undoubtedly open relations encourage some expression of conflict.

Both of these features reflect the level of permeability between schools as service organizations and their environments. From a systems perspective, a high degree of permeability may enable service organizations such as schools to better maintain equilibrium between themselves and their environments (cf. Corwin, 1974; Owens, 1970); this state of equilibrium may enhance goal attainment. In sum, the results of this study reaffirm both the salience of contact between service organizations and their environmental elements and the importance of environmental support for service organization functioning (cf. Cohen and Collins, 1974). Schools again emerge as systems open to the influence of persons and organizations in the larger society and as systems striving to maintain a certain degree of independence from environmental elements (Herriott and Hodgkins, 1973: 15-16). Yet the data reported here indicate that system openness may be at least somewhat related to effective performance of such service organizations as schools. It remains to be examined which of the boundary protection and boundary spanning activities schools engage in are functional and which are dysfunctional for effective performance.

It is interesting to note that actual participation in decision making--a more powerful means of influence--is unrelated to achievement. The implication is that goal attainment in schools is more influenced by a supportive and involved environment than by a power wielding environment. Perhaps sharing the decision making with non-members detracts from efficient and effective decision making, i.e. perhaps productive decision making requires specialized personnel.

Much of the rhetoric on community involvement and support for schools centers on the large, complex, hierarchial, rule emphasizing features of

schools, all of which supposedly hinder school-community links. Yet the data reported in this study indicate that such structural features do not significantly reduce the positive relationship between achievement levels and community involvement and support. In short, that data do not support the commonly defined deleterious effects of school structure on the relationship between community involvement and support and school performance. Moreover, besides school socioeconomic status, the data indicate moderate unique relationships between achievement and two of the structural factors examined: a positive relationship with teacher training and seniority and a negative relationship with size.

This study supports the conclusion that several dimensions of community involvement and support are moderately positively related with achievement in both high and low socioeconomic status schools. This finding should be underscored since many analyses of achievement level conclude that that the effects of many teacher and school variables disappear in the face of controls for socioeconomic status variables. Such findings lead various reasearchers (e.g., Coleman, 1966, and Jencks, 1972) to conclude that the home background of students is more important than most school variables. Given the results of this study and given the conclusion that little can be done to alter the home lives of children,[3] perhaps increasing policy attention should be directed to the role of the community. Saxe's work (1975) contains numerous suggestions for improving school-community interaction. By improving the number, types, and levels of interaction, by improving the communication between school and community, and by utilizing community resources, it is suggested that schools may become more effective in the future (see also Coleman, 1972; Rash and Markun,

1973; and Toffler, 1974). Developments in this direction seem likely given public support for increased community involvement in schools (Noack, 1972).

Several cautions should be noted in this analysis. First, although several of the beta weights are statistically significant, the relationships are only modest at best. However, they are positive, as predicted by the hypothesis, and they remain moderately positive in the face of controls for structural factors, including school socioeconomic status. Second, since the analysis is cross sectional, it is difficult to establish the temporal priority of community involvement and support, and therefore the casual effects of this variable. Two interpretations of the data are possible. On the one hand, it can be assumed that community involvement and support antecedes achievement and, therefore, may cause achievement level to increase. Given the fact that there had been a considerable increase in school-community links in the two years preceding the study, this interpretation seems plausible. On the other hand, however, high achievement may itself engender involvement and support. That is, parents and other community individuals are more likely to become involved in and support schools with high achievement levels. More importantly, personnel in highly achieving schools may actually seek out community input and support to assist them in maintaining high levels of performance. It is difficult to empirically determine which explanation is most accurate, given the cross-sectional nature of the data.

A third caution relates to the fact that achievement was measured at the fourth grade only. While it appears likely that grade level achievement scores are highly related, the results technically apply only to the fourth grade. Fourthly, measurement error may have influenced the

the relationships. The more abstract the concept, the higher the possibility of measurement error. Several of the concepts examined, including the independent variable, are quite abstract and may therefore reflect some measurement error. The impact of measurement error on the relationships examined is difficult to assess. However, it is interesting to note that the highest beta weights are those of factors measured primarily with official documents data (school SES, teacher training-seniority, and size). Perhaps as more error-free measures of such concepts as community involvement and support, adaptability, and control structure are developed, the relationships found in these data may become more significant.

Several contributions emerge from the study. First, the data clearly indicate that the relationships between several dimensions of community involvement and support and achievement are positive. Second, the positive relationships exists in spite of controls for school socioeconomic status and several structural factors. Third, the data suggest that actual citizen involvement in decision making--a more significant form of power--is not positively associated with achievement, as are several dimensions reflecting a less powerful but more supportive role. Fourth, an initial attempt has been made to empirically determine some of the dimensions of such a broad concept as community involvement and support. Further research is needed on both this concept and its relationship to school functioning, including outcomes other than only basic skills.

FOOTNOTES

1. Although few authors in this perspective cite him, Coleman (1966) was among the first to note the highly significant positive relationship between sense of control over one's life and achievement among students.

2. Both officials in the school system analyzed and colleagues in the School of Education support the conclusion that the relationship among various grade level achievement scores are positive.

3. See Burton White (1976) for an important exception to this generalization.

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TABLE 1 - Items Developed to Measure Community Involvement and Support

The following two items were scored on a five-point scale ranging from "not at all characteristic of my school" to "very characteristic of my school:"

1. The active community groups all have been very supportive of this school's policies.
2. Community groups have been instrumental in helping to raise funds that this school needs.

The following four items were scored on a five-point scale ranging from "much below average" to"much above average:"

3. The extensiveness of parental participation in school activities.
4. The opportunity for parents to sit down and discuss problems with the teacher.
5. The opportunity for parents to sit down and discuss problems with the administration.
6. The support given to the school by parents.

The following six items were scored on an eight-point scale ranging from "0-10%" to "91-100%." All pertain to the percentage of parents and citizens who:

7. Attend at least one school-community meeting per year.
8. Attend at least one school board meeting per year.
9. Attend at least one parent-teacher conference per year.
10. Help with school functions, such as school lunch programs.
11. Help with fund raising.
12. Voted in the last school bond issue.

The following two items asked for raw values:

13. How many times during the school year the school facilities were used by outside groups for meetings, sporting events, etc.
14. How many different groups used the school's facilities.

The following six items were scored on a five-point scale ranging from "3 contacts or less per month" to "21 or more contacts per month:"

15. Number of contacts between principal and individual parents at school.
16. Number of contacts between teachers and individual parents at school (average per teacher).
17. Number of contacts between principal and groups of parents at school.
18. Number of contacts between teachers and groups of parents at school (average per teacher).
19. Number of contacts between principal and parents in the home.
20. Number of contacts between teachers and parents in the home (average per teacher).

The following nine items were scored on a five-point scale ranging from "usually does not participate" to "usually participates and has decisive influence." All items refer to the role of citizens in decision making in the following areas:

21. Selecting required texts.
22. Selecting supplementary materials.

23. Establishing course objectives.
24. Determining daily lesson plans and activities.
25. Hiring new teachers.
26. Establishing policy and procedures for evaluating teachers.
27. The marking policies.
28. Establishing student disciplinary policies.
29. Budget allocation.

TABLE 2 Principal Components Analysis of Community Involvement and Support Items.

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
1. Groups supportive	.33	-.03	-.08	-.13	.48	-.18	.30
2. Groups raise $	.25	.08	-.13	.05	.13	-.04	.79*
3. Parental partic.	.36	.10	.09	.03	.29	.19	.47
4. Discuss with teacher	.19	.14	.05	.10	.81*	.01	.15
5. Discuss with admin.	.13	.10	-.02	.03	.84*	.07	-.05
6. Parental support	.47	.04	.03	.12	.50	-.08	.32
7. Attend commun. mtg.	.75*	.07	.04	.18	.18	.07	.13
8. Attend board mtg.	.62*	-.06	.29	.06	.11	-.01	.01
9. Parent-tchr conf.	.76*	.01	-.01	.07	.05	.13	.09
10. Help school funct.	.72*	.11	-.02	-.04	.09	.09	-.04
11. Help fund raising	.71*	.11	.24	-.12	.08	-.15	.19
12. Voted bond issue	.62*	-.01	.10	-.05	.31	.22	.10
13. Facilities used	.04	.04	-.03	-.05	-.08	.87*	.04
14 #grps use facils.	.20	.02	.15	.29	.11	.84*	-.01
15. Prin-individ. parents	-.02	.08	.78	.11	.04	.10	.11
16. Tchrs-individ. parents	.21	-.01	.63	-.03	.12	-.04	-.10
17. Prin-parent grps.	.20	.14	.72*	-.08	.12	.02	.05
18. Tchr-parent grps.	.29	-.12	.68*	.06	.14	.17	-.10
19. Prin-parents home	-.01	.01	.76*	.01	-.11	.04	.11
20. Tchr-parents home	.01	-.02	.74*	.07	-.09	-.06	-.15
21. Select texts	.10	.84*	-.02	.05	.14	.04	.14
22. Select suppl. mater.	-.09	.86*	.02	.16	.03	-.01	.04
23. Course objecs.	.12	.73*	.06	.11	.08	.06	-.02
24. Lesson plans	-.09	.07	.21	.69*	.13	.05	-.21
25. Hiring teachers	.22	-.04	.02	.74*	.09	-.15	.05
26. Eval. teachers	-.06	.22	-.04	.61*	-.07	.06	.19
27. Marking policies	.25	.35	-.02	.48*	-.05	-.09	-.19
28. Discipl. policies	-.12	.34	-.19	.50*	.03	.21	.18
29. Budget alloc.	.13	.47	-.07	.39*	.01	-.13	-.42

* indicates highest loading items

TABLE 3 - Principal Components Analysis of Structural Variables

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1. Enrollment	-.05	-.23	.88*	-.05	-.10
2. Centralization	-.06	-.08	-.01	.18	.05
3. Standardization	.09	.13	.36	.65*	.25
4. Specialization	-.06	.70*	-.04	-.06	.30
5. Flexibility	-.16	-.26	-.48	-.20	.47*
6. Adaptability	-.15	.08	-.07	-.01	.84*
7. Close super.	-.15	-.13	-.16	.79*	-.26
8. Pupil mobility	.79*	.01	-.04	-.09	-.20
9. Ave. class size	-.71*	-.16	.43	.02	.16
10. Ave. tchr. exper.	.05	.82*	-.09	.03	-.23
11. Bldg. age.	.10	-.45	.11	-.40	-.19
12. # paraprofess.	.76*	.04	.37	-.17	-.07
13. % minor tchrs.	.64*	-.50	.05	.18	.01
14. % low SES	.92*	-.08	-.01	.02	.03

*indicates highest loading items.

TABLE 4 - Intercorrelations Among Dependent Variables, Independent Variable Factors, and Control Variables Factors. *

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Achievement													
2. School SES **	-.67												
3. Tchr training-seniority	.33	.00											
4. School size	-.20	.00	.00										
5. Adaptability	.02	.00	.00	.00									
6. Control Structure	.08	.00	-.01	.02	.00								
7. Centralization	.10	.00	.01	-.02	.00	.02							
8. Behavioral involve.	.35	-.23	.06	-.20	.25	.11	-.07						
9. Curric. decis. mak.	-.04	-.03	.02	.03	.15	.00	-.09	.00					
10. Sch-parent contacts	.14	.16	-.15	.04	.17	-.02	.12	.00	.00				
11. Proced. decis. mak.	-.09	.14	-.08	-.05	.18	.13	-.09	.00	.00	.00			
12. Discuss. opportuns.	.20	-.02	.11	-.03	.25	.21	.03	.00	.00	.00	.00		
13. Facilities usage	.21	-.24	.06	.33	.07	-.15	.01	.00	.00	.00	.00	.00	
14. Fund raising	.28	-.21	.15	-.01	.13	.02	-.04	.00	.00	.00	.00	.00	.00

*With an N of 135, the minimum correlation for a significance level of .001 is r = .27, for p. = .01 it is r = .19, and for p. = .05 it is r = .13. The dependent variable is listed first, the six control variables factors next, and the seven independent variable factors last.

** A high score indicates low socioeconomic status.